Yukon
Health and Social Services

Yukon Influenza Surveillance Report
Influenza Season: 2009-2010
Summary Report
FluWatch Week 48 (Nov 29 - Dec 5, 2009)

******All data are provisional and subject to change as information is received.***

Prepared by: Yukon Communicable Disease Control
Report Written: Dec 11, 2009
Disseminated: Dec 11, 2009

Report Highlights

This surveillance report produced by YCDC summarizes influenza activity in the Yukon for the 2009-2010 season, including FluWatch Week 48 (Nov 29 - Dec 5, 2009). Please note that FluWatch reports are produced one week behind the current date.

2009-2010 FluWatch Weeks Calendar: http://www.phac-aspc.gc.ca/fluwatch/09-10/09-10cal-eng.php

During week 48, all surveillance indicators, except for calls to HealthLink 811, continue to demonstrate declining influenza activity, approaching expected activity for this time of year. Included in this report is the proportion of the population that has received pH1N1 vaccination since the campaign began October 26, 2009.

Pandemic H1N1 (pH1N1) Severe Outcomes

Hospitalizations
There were no new laboratory confirmed hospitalizations during week 48. Since October 20th, there have been 14 pH1N1 Yukon cases admitted to hospital. Among hospitalized cases 12 of the 14 had at least one risk factor for influenza complications. 3 out of 14 hospitalized cases have been admitted to ICU.

Deaths
On Wednesday December 9th, Yukon's Chief Medical Officer of Health announced a third death in the territory where pH1N1 was detected. The death occured in an infant who died early November, however, the pH1N1 infection is thought to be conicidental and not a contributing factor in the death. A complete coroner's investigation is pending. Link to Yukon Health and Social Services Release: http://www.hss.gov.yk.ca/news/id_213/
Yukon has had two previous deaths: The first death occurred during week 44, in a female child with underlying health conditions. The second death occurred during week 46 in an adult female, underlying health conditions were not present.

FluWatch Reporting

Based on FluWatch activity level definitions, Yukon has reported the following activity levels:

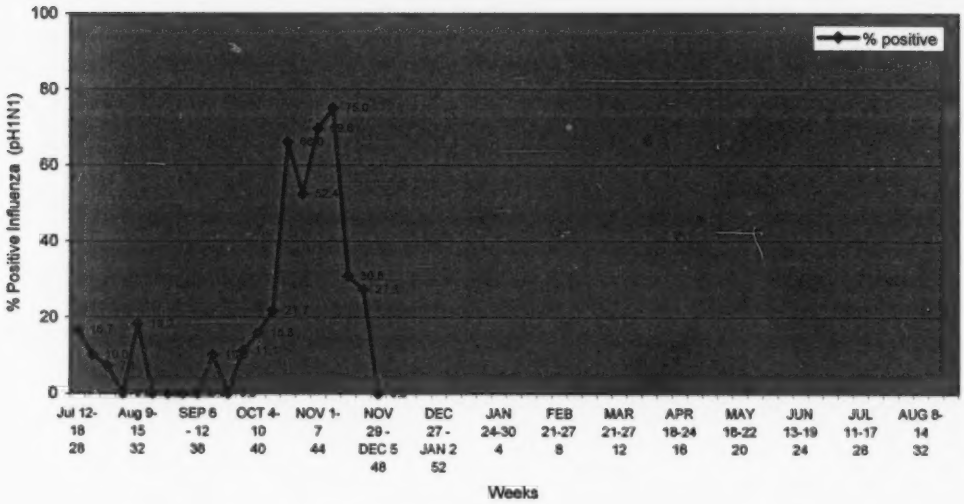
FluWatch activity level definition http://www.phac-aspc.gc.ca/fluwatch/09-10/def09-10-eng.php

Week 48	Sporadic: Sporadically occurring ILI and lab confirmed influenza together with no outbreaks detected within the surveillance region.

Laboratory Reports

Percentage of respiratory specimens testing positive for influenza A was highest during week 45, when percent positivity was 75%. Since week 45, percent positivity has continued to decline. During week 48 none of the submitted specimens were positive for influenza. *Please note data collection is ongoing.*

Percentage of Respiratory Specimens (Submitted for testing in Yukon) Diagnosed Positive for Influenza pH1N1 during weeks 28 - 48



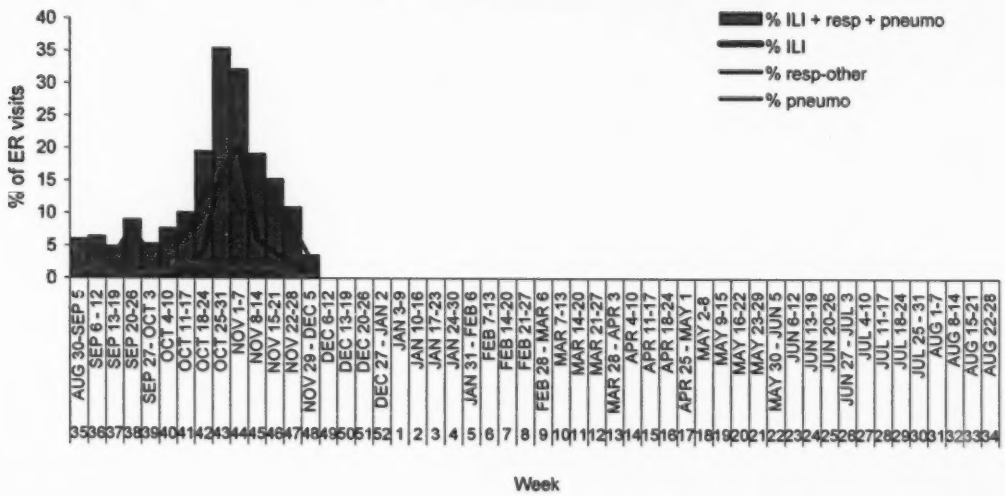
Communities with Laboratory Confirmed pH1N1

Cumulative laboratory information indicates that since April, 2009 Whitehorse and 9 out of 13 surrounding communities have had confirmed pH1N1 case reports.

Whitehorse General Hospital Emergency Visits

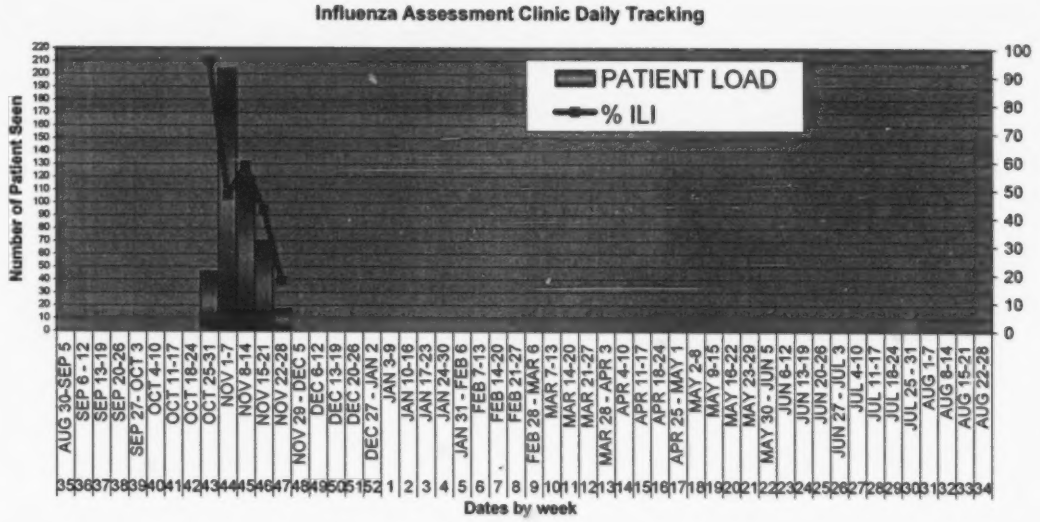
The percentage of presentations to the WGH emergency department with influenza-like illness (ILI) continued to decrease during week 48. The proportion of visits for ILI, other respiratory symptoms, and pneumonia combined also decreased. From week 42 through week 44 (Oct 18-Nov 7), the percentage of presentations with ILI increased from 4% to 20%.The influenza assessment centre was open during weeks 44 to 47 .

Percent of WGH ER visits with influenza-like illness (ILI), other respiratory symptoms, or pneumonia by week



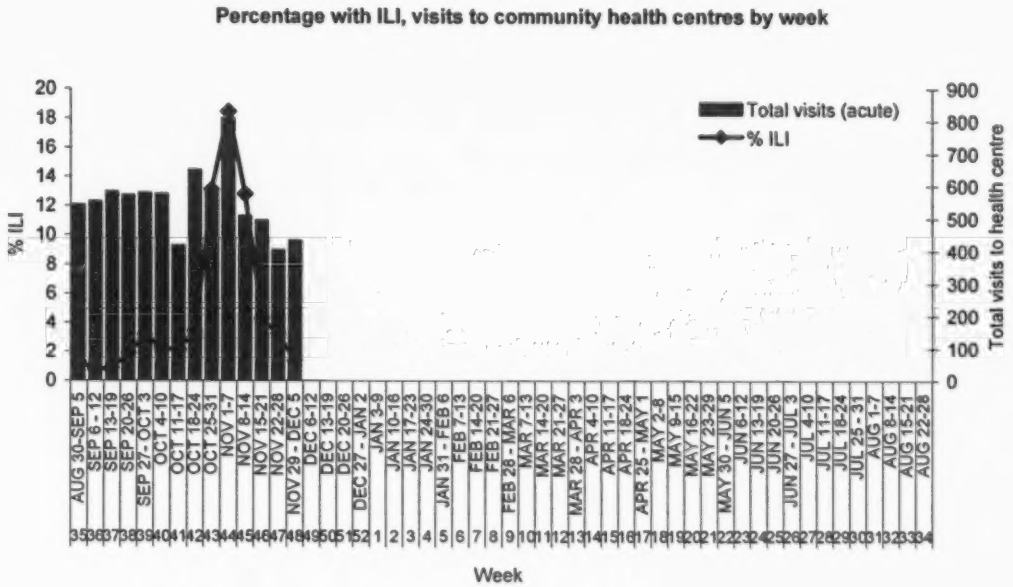
Influenza Assessment Clinic

This downtown Whitehorse clinic opened its doors on October 30th, 2009. The following graph depicts patient volume from October 30th to November 27, 2009. The clinic's last day of operation was November 27th, 2009.



Community Health Centres

Influenza-related visits to Community Health Centres (rural Yukon) increased substantially during weeks 42-44 while decreasing activity was seen from week 45 on. During week 48, the proportion of ILI related visits have returned to similar levels experienced in week 42 and earlier.

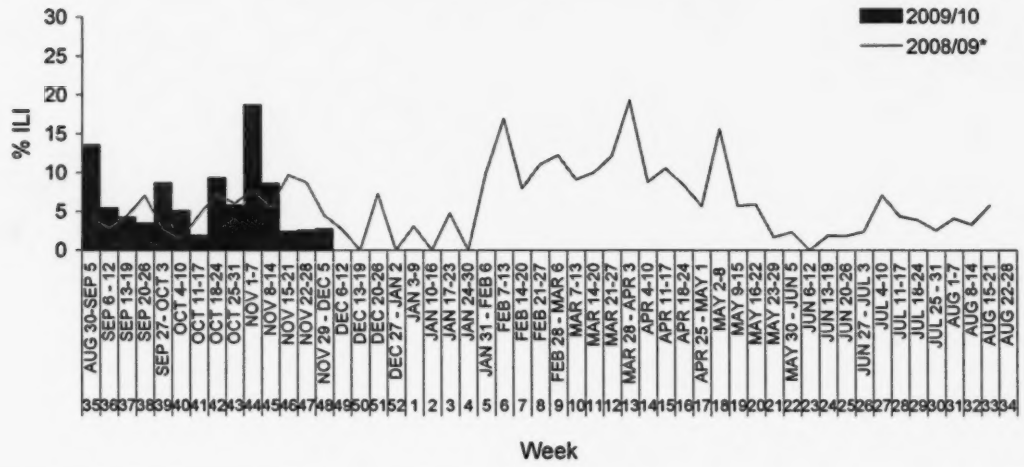


*Data provided from Community Nursing

Sentinel physicians/sites

The percentage of patients presenting to sentinel physicians or sites with ILI in week 48 was 2.7%. The highest proportions of ILI have been seen in the younger age groups (0-4 years, followed by 5-19 years). During the 2008/09 season, an average of five sentinel reports were received each week. A new recruitment of sentinel physicians and sites occurred in July 2009. There are presently 18 sentinel physicians/sites across the territory; 72% of sentinels reported in week 48. Yukon's sentinel surveillance system is comprised of all Community Health Centres and participating physicians. (FluWatch Sentinel Surveillance Information *http://www.phac-aspc.gc.ca/fluwatch/sent-eng.php*)

Percentage with ILI, visits to sentinels by week

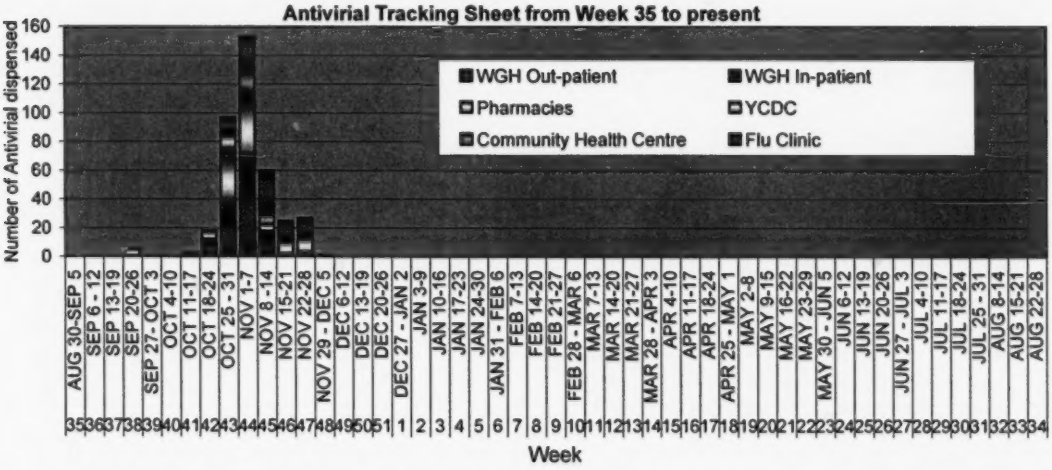


*2008/09 weeks are slightly different than those shown (following the Sun-Sat weekly pattern).

Antiviral Prescriptions/Dispensing

From week 42 to week 44, there was a sharp increase in antiviral dispension in the territory. The highest number of antivirals was dispensed in week 44, with 154 individuals given antivirals. Antiviral dispension has declined from week 45 on. *Please note data collection is ongoing.*

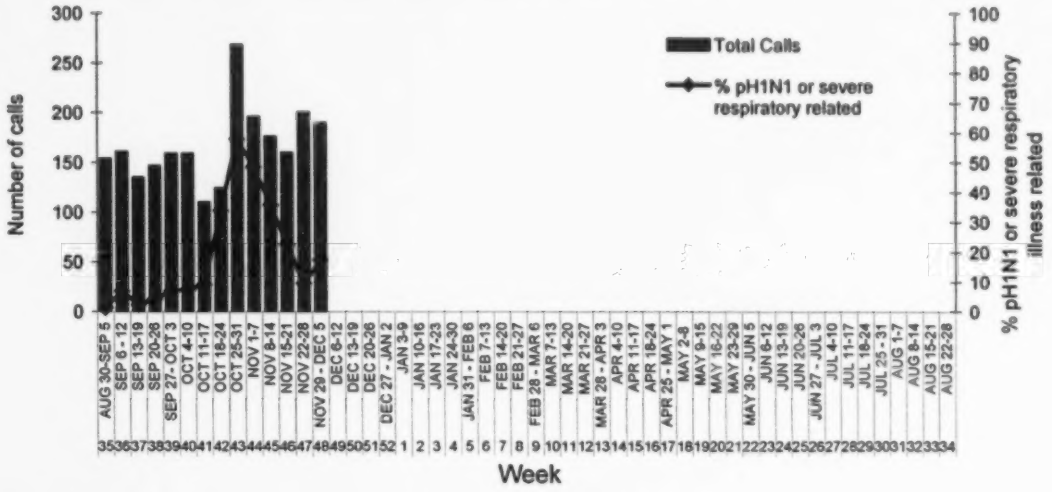
Antiviral Tracking Sheet from Week 35 to present



HealthLink 811

The percentage of calls related to Influenza A pH1N1 or severe respiratory illness sharply increased in weeks 42 and 43 compared to previous weeks. During week 43, 58% of HealthLink 811 calls were related to pH1N1 or severe respiratory illness, with 45% of callers requesting information on symptom management and/or guidance. Week 43 saw an increase in overall call volume to HealthLink as well. During weeks 44 to 47, a decreasing proportion of HealthLink calls has been related to pH1N1 or severe respiratory illness. During week 48 the proportion of calls due to pH1N1 or severe respiratory illness increased to 17.4% compared to 9.5% in week 47.

Number of calls and percentage related to pH1N1 or severe respiratory illness by month



Calls related to pH1N1 or severe respiratory illness by type of call

Week ending	Oct 17	Oct 24	Oct 31	Nov 07	Nov 14	Nov 21	Nov 28	Dec 05	Dec 12	Dec 19	Dec 26	Jan 02
Week	41	42	43	44	45	46	47	48	49	50	51	52
Triage	70.0	73.8	44.5	58.9	47.6	50.0	17.1	36.4				
Education	30.0	26.2	54.8	40.0	42.9	30.8	74.3	33.3				
Wayfinding	0.0	0.0	0.6	1.1	9.5	19.2	8.6	30.3				

Note: Triage = caller requesting information on symptom management/guidance; Education = caller requesting information about an illness or condition; Wayfinding = caller looking for contact or service directions

Outbreaks

On October 29th, 2009 (during week 43) YCDC was notified of an influenza outbreak within the Whitehorse Correctional facility. The outbreak was contained to fewer than 10 residents who developed symptoms during their stay at the facility or who exhibited symptoms of influenza upon admission. Causative organism of the outbreak was identified as pH1N1. This outbreak was declared over on November 16th, 2009
No additional facility outbreaks have been reported since week 43.

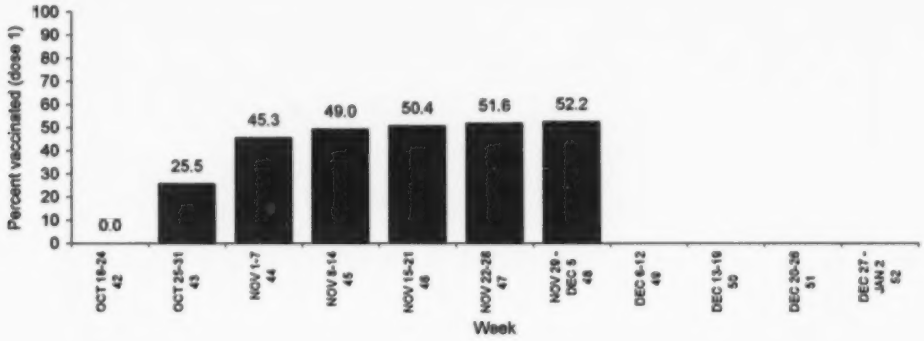
Schools

During week 48, there were no reports of high absenteeism in schools.

Immunization

The percentage of the population vaccinated with one dose against influenza A pH1N1 reached 52.2% in week 48. The age groups with the highest proportions vaccinated (dose 1) are those 6 months to 4 years and those 65 year or older. Vaccine administration is ongoing.

Proportion of population vaccinated, dose 1, by week in the Yukon Territory



Proportion of population vaccinated, dose 1, by age group by December 5, 2009

Age group	% Vaccinated
6 mo - 4 years	68.2
5-18 years	55.1
19-29 years	34.1
30-39 years	50.6
40-64 years	54.3
65+ years	67.1
TOTAL	52.2

***Data provided by the Community Nursing Vaccination Program.**

Adverse Events Following Immunization

Of 17, 897 doses administered from October 26 to December 6, 2009, 24 adverse events following immunization have been reported. Half of these events were reports of local reactions, and half were reports of allergic reactions. None of the events fit the criteria for serious adverse events, and none required hospitalization.

Obtained from: BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2009 -10: Number 9, Week 48

November 29 - December 5, 2009

Canada

FluWatch

During week 47, all national influenza activity indicators decreased. ILI consultation rates decreased for the fourth consecutive week from 111 (in week 43) to 37 consultations per 1000 patient visits in week 47; this is above the expected range for this time of year. People under 20 had the highest consultation rates. The proportion of tests positive for influenza was 34.3%, a decline from the previous week. Over 99% of all subtyped influenza A specimens were positive for pH1N1; 1 specimen was positive for H3N2 and none were positive for seasonal H1N1. One specimen was positive for influenza B. Geographically BC, Saskatchewan, and Newfoundland reported widespread activity. *www.phac-aspc.gc.ca/fluwatch/*

National Microbiology Laboratory

Between September 1st and December 3, 2009, 379 influenza isolates were collected from provincial and hospital labs and characterized at the National Microbiology Laboratory (NML):
374 A/California/07/2009 (H1N1)-like§ from BC, AB, SASK, ON, QC, NB, NS, NT, & NU;
2 A/Brisbane/59/2007(H1N1)-like† from AB & QC;
1 A/Brisbane/10/2007(H3N2) -like† from ON;
1 A/Perth/16/2009 (H3N2)-like from AB;
1 B/Brisbane/60/2008-like† from ON
§ A/California/07/2009 (H1N1) is the variant reference virus (pH1N1) selected by WHO for a pandemic influenza A/H1N1 vaccine.
† indicates a strain match to the 2009-10 vaccine

Antivirial Resistance

Drug susceptibility testing at the NML between September 1st and December 3rd, 2009 indicated that most pH1N1 (n=358) isolates were sensitive to oseltamivir, 3 viruses were resistant. All influenza B isolates (n=1) and influenza A/H3N2 isolates (n=2) tested were sensitive and the 2 seasonal A/H1N1 isolates tested were resistant. All pH1N1 (n=351), seasonal H1N1(n=2), A/H3N2 (n=2) and influenza B (n=1) isolates were sensitive to zanamivir. All pH1N1 (n=369), and A/H3N2 (n=8) isolates were resistant to amantadine. One isolate for seasonal H1N1 was sensitive and one was resistant to amantadine.
Global surveillance has shown that circulating pH1N1 viruses are resistant to amantadine but remain sensitive to zanamivir and oseltamivir, although sporadic cases of oseltamivir resistance have been observed worldwide.

International

In the United States (http://www.cdc.gov/flu/weekly/), in the week ending November 28th, influenza activity continued to decrease. 15.4% of respiratory specimens tested in reference laboratories in week 47 were positive for influenza, and over 99% percent of the subtyped influenza A viruses were pH1N1. 0.6% of specimens tested positive for Influenza B. The proportion of sentinel physician visits for ILI decreased to 3.7%, this is similar to the seasonal peak for last year. The proportion of deaths attributed to pneumonia and influenza was above the epidemic threshold for the ninth consecutive week.
In Europe for the week ending December 4 influenza activity remained high. All reporting countries indicated medium to high intensity influenza activity; nine countries (northern, central and western Europe) reported a declining trend, and 11 countries (eastern and southern Europe) reported an increasing trend. 38% of sentinel laboratory samples were positive for influenza. Over 99% of specimens positive for influenza A were pH1N1. (*http://www.eiss.org*)

Pandemic H1N1 Influenza Web Sites

Yukon H&SS	*www.hss.gov.yk.ca/*
PHAC:	*www.phac-aspc.gc.ca/alert-alerte/swine_200904-eng.php*
BCCDC:	*www.bccdc.ca/dis-cond/a-z/_h/HumanSwineFlu/default.htm*
	www.health.gov.bc.ca/pandemic/response/index.html
US CDC:	*www.cdc.gov/swineflu/index.htm*
WHO:	*www.who.int/csr/disease/swineflu/en/index.html*

Acronyms

ILI:	Influenza-Like Illness
pH1N1:	Pandemic H1N1 influenza or swine origin influenza
WHO:	World Health Organization

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